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Research Article

Prevalence of Renal Lesions in Southern Tertiary Hospital of Nigeria from 2005

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Abstract: The aim and objectives of the study was to determine the prevalence of renal lesions in our centre with view of evaluating the age and sex predilection. A cross sectional study of all renal lesions histologically diagnosed results were extracted from the departmental result register from 2005-2012. However, results of 2010 and 2011 were excluded from our study as they were seen to be missing. The six years result obtained was analysed using statistical format of SPSS version 16. The result obtained showed female predominance in all the years of study as evidence in 2005 with a ratio of 3:1, 2008: 4:1, 2009: 2:1, and 2012 5:1. Also the worst years affected with this lesions was age range less than 20 years as depicted in 2005(50%), 2009(55.6%) and this is closely followed by age range of 20-30 years having the highest occurrence at 2006 (42.9%); 2009(22.2%) and 2012 (40%)**.** There is an increase female preponderance averaging 1:3 in almost all the years of the study. Also the worst age of predilection was less than 20 years and this is closely followed by 20-30 years. However, we believe if effective health insurance scheme is ensued and made accessible to all and sundry that will not only prevent the late presentation but will enhance early intervention by all experts involved in treatment of such lesions.
Keywords: Renal lesions, histology, age range and sex (gender)

INTRODUCTION

Renal diseases otherwise lesions are responsible for a great deal of morbidity though are not equally the greatest causes of mortality [1]. In USA, it is believed that about 45,000 deaths are result of renal lesions; in contrast to 650,000 to heart disease;560,000 to cancer and 145,000 to cerebrovascular accidents [2].

Millions of people all over the world are affected yearly by non-fatal kidney lesions but often times most of this lesions result from infections of lower urinary tract, renal stones and urinary obstructions. Most women often times in lives suffer from urinary tract infections (UTI) or kidney stones. However, recent treatment modalities like dialysis/transplantation have sustained the worst patients over the years. These recent treatment modalities have reduced the risks of mild chronic kidney diseases which could have resulted to cerebrovascular diseases [2].

It is imperative to note that chronic kidney disease (CKD) is a world- wide health problem; as it has an increased risk for cardiovascular disease and chronic renal failure (CRF). It is the ninth leading cause of death in the USA [3]. However, haemodialysis performed six times a week always increases the high risk of vascular complications when is compared with conventional three days regimen [3, 4]. In some cases depending on the level of damage renal replacement therapy could be an alternative to treatment as in an asymptomatic patient with glomerular filtration rate (GFR) of 5-9ml/min [5]. It is evident that regular renal replacement therapy (RRT) with haemodialysis (HD), peritoneal dialysis or renal replacement enhances prognosis of patients in end stage renal disease, although complications may lead to cardiovascular disease [6-8].

In classification systems of CKD the national kidney foundation advised that GFR and albuminuria levels be used, than individually, as to improve the prognosis and accuracy in assessing the levels of the disease. Also have to take consideration of GFR and albuminuria levels when overall mortality, cardiovascular disease, end stage kidney failure, acute kidney injury and possible progression of CKD. Is advisable for a nephrologists to attend to such patients with low GFR (<15ml/min) or high albuminuria >300mg/24hr) [9, 10].

It is now known that CKD and End stage renal disease (ESRD) are associated with morbidity and mortality of most malignant lesions of renal disease

example renal cell carcinoma(RCC), urothelial carcinoma, thyroid and lung carcinoma [11-13]. Malignant lesions of the renal tissues seem to be the prominent malignancies seen among dialysis patients in western countries and Taiwan [14, 15].

In as much as haemodialysis helps these patients, it is evident that when it is longer example ten years and above it have increased risk of developing RCC with sarcomatoid component than when it is shorter less than ten years [16]. Moreover, the progression of renal failure in CKD is more common in male than female [13, 17]. A Taiwan study, showed ESRD in female having a higher risk of malignancy than male patients [18].

In our study, we tend to evaluate the frequency of renal lesions among the genders, age group and possible worst year affected with the lesion within the year of study; all with view of making recommendation for a way forward.

MATERIALS AND METHODS

A sectional study of all histopathological diagnosed renal lesions within the period of 2005-2012 was extracted from the Departmental of Pathology, UCTH, Calabar result registers. However, histology result of 2010 and 2011 were not available hence was excluded from our study. The six years result available were analysed using statistical format of SPSS version 16.

Inclusion and Exclusion Criteria

Histology reports of 2010 and 2011 were excluded from the study because they were not available.

RESULTS

Table 1: Showing the age frequency

Age (Year)	2005	2006	2007	2008	2009	2012	Total	Percentage
Under 20	2	2	1	1	5	-	11	31.4
21-30	1	3	1	1	-	2	8	22.9
31-40	1	1	2	-	2	1	7	20.0
41-50	-	-	-	2	1	1	4	11.4
51-60	-	1	1	1	1	1	5	14.3
Total	4	7	5	5	9	5	35	100

Table 2: Showing the sex distribution of renal lesions

Sex	2005	2006	2007	2008	2009	2012	Total	Percentage
Male	1	4	3	1	3	2	14	40
Female	3	3	2	4	6	3	21	60
Total	4	7	5	5	9	5	35	100

DISCUSSION

In almost all the years of study there appeared to be female preponderance in the average of 1:3 to male in ratio. This is supported in some other studies as Badmus *et al*. [19], Michael IO *et al*. [20] and Chijioke *et al*. [21].

The predominant age of occurrence was noticed to be less than 20 years; closely followed by age range of 20-30 years. In all the years of study, the highest frequency occurrence was seen in less than 30 years of age; as this occurs in five respective years of study out of the six years. This is seen in other studies by Michael IO *et al*. [20] and Etuk I.S *et al*. [22]. This is largely attributed to patient late presentation and in most times due to parental ignorance. Environmental factors such as malnutrition or infections and genetic factors must have predisposed few of these patients to renal lesions (Nephritis). Also trauma to reticulo-endothelial system in course of plasmodiasis may have altered the immunological reactivity, thus resulting to development of renal lesion.

A few of the cases seen in age range of 30-40 and 50 -60/above years must have followed some disease state as hypertension, urinary tract infection, chronic renal failure and abdominal mass. However, most if not all present late when the kidneys are enlarged and palpable; with persistent high blood pressure plus features of renal lesions.

Apart from the above factors, we feel if health providers of most developing nations like ours are made relatively accessible to all – through a viable scheme like health insurance at all strata of economic level; all issues of late presentation and consequences will be averted. These will go a long way in accessing all cases of renal lesion at early stages – in essence easy diagnosis using recent technology as ultrasonography, CT-scan, intravenous urography etc. These will bring in effective management by nephrologists followed up with adequate dietary restrictions and regular clinical evaluations/quarterly electrolytes, urea and creatinine assay.

CONCLUSION

Renal lesions are commoner in the first two decade of life and among females. Finally, we are of the opinion, if the developing nation like ours provides an effective health insurance policy, accessible to all

classes of the citizenry it will not only greatly minimise this lesion but create effective early management devoid of any devastating complications.

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